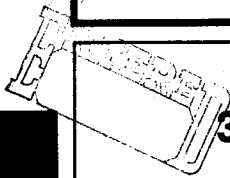


**SDR623CT/CAP6  
 thru  
 SDR625CT/CAP6**

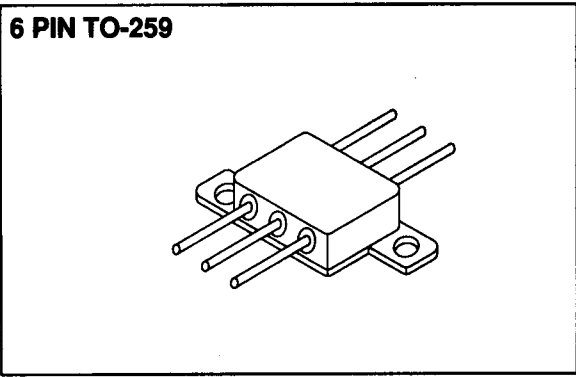
**Designer's Data Sheet**

- FEATURES:**
- Hyperfast Recovery: 35 nsec Maximum
  - Isolated low profile package
  - Ceramic Feed Thrus
  - Eutectic Die Attach Available
  - Hermetically Sealed
  - Low Reverse Leakage
  
  - Dual Centertap:  
 1 Common Anode, 1 Common Cathode
  
  - TX, TXV and Space Level Screening Available



**40 AMP  
 300-500 VOLTS  
 35 nsec**

**COMMON ANODE & CATHODE  
 HYPERFAST CENTERTAP  
 RECTIFIER**



**MAXIMUM RATINGS @ 25 C (Unless Otherwise Specified)**

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage, note 3	VRRM	300 400 500	Volts
SDR623CT/CAP6	VRWM		
SDR624CT/CAP6	VR		
SDR625CT/CAP6			
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	80	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C) note 1	IFSM	600	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, each individual diode	RθJC	1.9 0.65	°C/W
Junction to Case, note 2			

Note 1 Each pair of diodes  
 Note 2 All legs connected together  
 Note 3 550V class available upon request

**SDR623CT/CAP6  
thru  
SDR625CT/CAP6**

PRELIMINARY



**SOLID STATE DEVICES, INC**

14849 Firestone Boulevard · La Mirada, CA 90638  
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

**ELECTRICAL CHARACTERISTICS (Per Leg)**

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
<b>Instantaneous Forward Voltage Drop</b> (IF = 10 Adc, TA=25°C, 300µs Pulse) (IF = 20 Adc, TA=25°C, 300µs Pulse)	<b>V<sub>F</sub></b>	1.35 1.55	Vdc
<b>Instantaneous Forward Voltage Drop</b> (IF = 10 Adc, TA=100°C, 300µs Pulse) (IF = 10 Adc, TA= -55°C, 300µs Pulse)	<b>V<sub>F</sub></b>	1.25 1.45	Vdc
<b>Reverse Leakage Current</b> (Rated VR, TA=25°C, 300µs pulse minimum)	<b>I<sub>R</sub></b>	50	µA
<b>Reverse Leakage Current</b> (Rated VR, TA=100°C, 300µs pulse minimum)	<b>I<sub>R</sub></b>	5	mA
<b>Junction Capacitance</b> (VR = 10 Vdc, TA=25°C, f=1MHz )	<b>C<sub>J</sub></b>	150	pf
<b>Reverse Recovery Time</b> (IF =500mA, I <sub>R</sub> = 1A, I <sub>RR</sub> =250mA, TA=25°C)	<b>t<sub>rr</sub></b>	35	nsec

**CASE OUTLINE: TO-259-6**

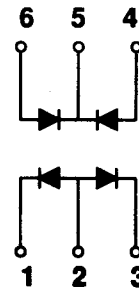
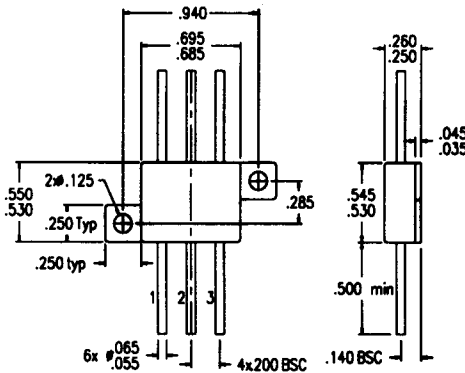
**PIN OUT:**

**COMMON ANODE**

- PIN 1: CATHODE
- PIN 2: ANODE
- PIN 3: CATHODE

**COMMON CATHODE:**

- PIN 4: ANODE
- PIN 5: CATHODE
- PIN 6: ANODE



**TYPICAL OPERATING CURVES**

TA=25°C Unless otherwise specified

